CLAIMS

1. A method, comprising:

2 receiving a set of requesting indices identifying an element to be located in a data

table, the data table linearly storing elements of a conceptual multi-

4 dimensional data array, their order prescribed by nesting indices

corresponding to dimensions of the emulated array, the entries in the data table

6 being separated by special table entries that indicate index transitions;

searching for a segment of the data table corresponding to the most major of the

8 requesting indices; and

searching, within the segment of the data table corresponding to the most major of

10 the requesting indices, for a segment of the data table corresponding to the

second most major of the requesting indices.

2. The method of claim 1, wherein searching for a segment of the table

2 corresponding to one of the requesting indices comprises counting occurrences of

the special table entries indicating transitions of that index.

3. The method of claim 1 wherein the conceptual array has two dimensions, and the

2 segment of the data table corresponding to the second most major of the

requesting indices is the element to be located in the data table.

4. The method of claim 1, further comprising searching, within the table segment

2 corresponding to the second most major of the requesting indices, for a table

segment corresponding to the third most major of the requesting indices.

5. The method of claim 4, wherein the conceptual array has three dimensions, and the segment of the data table corresponding to the third most major of the requesting indices is the element to be located in the data table.

6. The method of claim 1, further comprising for each succeedingly more minor index, searching, within the segment corresponding to the immediately more major index, a table segment corresponding to the current index.

7. The method of claim 6, wherein the table element corresponding to the most minor index is the element to be located in the data table.

8. The method of claim 1, wherein the data table comprises a table end indicator at the end of the data table.

9. The method of claim 8, further comprising returning an indication that the requesting indices were invalid when the table end indicator is encountered during searching.

10. The method of claim 1, further comprising passing the requested element data back to a calling routine.

11. A method, comprising:

receiving a requesting index identifying an element to be located in a data table, the data table linearly storing elements of a conceptual one-dimensional data array, the entries in the data table being separated by special table entries that indicate index transitions; and

searching for an element of the data table corresponding to the requesting index.

12. The method of claim 11 wherein searching for the element of the table

2   corresponding to the requesting index comprises counting the special table entries

       that indicate index transitions.

13. A computer, programmed to perform the method of claim 1.

14. A computer, programmed to perform the method of claim 11.

15. A computer-readable medium encoded with a computer program that performs the

2   method of claim 1.

16. The computer-readable medium of claim 15 wherein the computer-readable

2   medium is a magnetic disk.

17. The computer-readable medium of claim 15 wherein the computer-readable

2   medium is a read only memory.

18. The computer-readable medium of claim 15 wherein the computer-readable

2   medium is a random access memory.

19. The computer-readable medium of claim 15 wherein the computer-readable

2   medium is an optical disk.

20. A computer-readable medium encoded with a computer program that performs the

2   method of claim 11.